

CLAIMS

What is claimed is:

1. An image compression apparatus for compressing color document image data, the image compression apparatus comprising:
 - a connected pixel extraction unit for extracting drawn connected pixels contained in the color document image;
 - a foreground/background image classification unit for classifying connected pixel groups extracted by the connected pixel extraction unit as a foreground image or a background image;
 - a color-by-color-based binary image generation unit for generating binary image data for each color from information on the color of the connected pixel groups classified as a foreground image;
 - a foreground image compression unit for compressing the color binary image data generated by the color-by-color-based binary image generation unit;
 - a background image generation unit for generating a background image;
 - a background image compression unit for compressing the background image generated by the background image generation unit; and
 - a compressed image data generation unit for combining the foreground image data compressed by the foreground image compression unit with the background image data compressed by the background image compression unit into a single piece of compression image data.
2. The image compression apparatus according to claim 1, wherein the background image generation unit reduces the background image to generate a reduced image with a low image resolution.

3. The image compression apparatus according to claim 1, wherein the background image generation unit generates a background image in which each pixel in a foreground image portion included in the background image is filled with a pixel color similar to the color of the neighboring pixel.

4. The image compression apparatus according to claim 1, wherein, in a case that the resolution of a color document image data inputted through an image input device is low, binary image data generated by the color-by-color-based binary image generation unit is converted into a high-resolution image by approximation such as linear interpolation and the image is compressed by the foreground image compression unit.